

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
23 October 2003 (23.10.2003)

PCT

(10) International Publication Number
WO 03/088269 A2

(51) International Patent Classification⁷: **G21G 1/00**

(21) International Application Number: PCT/GB02/05604

(22) International Filing Date:
11 December 2002 (11.12.2002)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
0208356.6 11 April 2002 (11.04.2002) GB

(71) Applicant (for all designated States except US): **AMERSHAM PLC** [GB/GB]; Amersham Place, Little Chalfont, Buckinghamshire HP7 9NA (GB).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **WEISNER, Peter,**

Stewart [GB/GB]; Amersham plc, The Grove Centre, White Lion Road, Amersham, Buckinghamshire HP7 9LL (GB). **FORREST, Terence, Robert, Frederick** [GB/GB]; Amersham plc, The Grove Centre, White Lion Road, Amersham, Buckinghamshire HP7 9LL (GB).

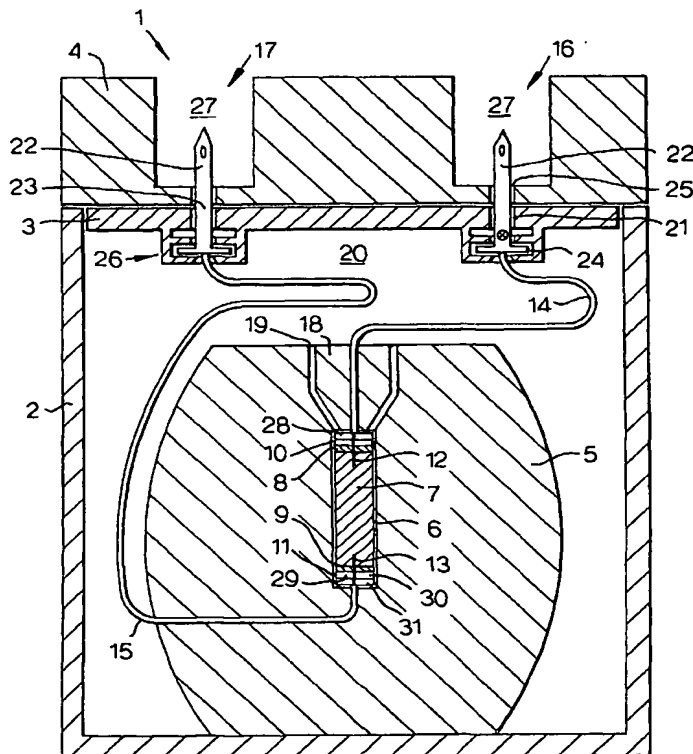
(74) Agents: **HAMMETT, Audrey, Grace, Campbell et al.;** Amersham plc, Amersham Place, Little Chalfont, Buckinghamshire HP7 9NA (GB).

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),

[Continued on next page]

(54) Title: RADIOISOTOPE GENERATOR AND METHOD OF CONSTRUCTION THEREOF



(57) Abstract: A device for producing a fluid containing a radioactive constituent, comprising a shielded chamber (5) with an opening for receiving an isotope container (6) housing a radioactive isotope (7); a chamber closure (18) adapted for cooperating with and closing the chamber opening; a first fluid port comprising a first hollow needle projecting into the shielded chamber from the chamber closure for fluid communication with the isotope container; a second fluid port comprising a second hollow needle projecting into the shielded chamber from the closed end of the chamber opposite the chamber closure for fluid communication with the isotope container; first and second compressible buffers (28, 29) mounted so as to surround at least partially the respective first and second hollow needles (12, 13), each buffer providing an outer surface for contact with opposed ends of the isotope container; and a spacer of a predetermined thickness associated with one or each of the first and second compressible buffers for determining the positioning of the isotope container within the shielded chamber.

WO 03/088269 A2



Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,
ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SI, SK,
TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
GW, ML, MR, NE, SN, TD, TG).

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

Published:

— *without international search report and to be republished
upon receipt of that report*